If you are using a printed copy of this procedure, and not the on-screen version, then you MUST make sure the dates at the bottom of the printed copy and the on-screen version match.
The on-screen version of the Collider-Accelerator Department Procedure is the Official Version.
Hard copies of all signed, official, C-A Operating Procedures are kept on file in the C-A ESHQ Training Office, Bldg. 911A.

C-A OPERATIONS PROCEDURES MANUAL

8.37 Safety Inspection of Marley Ozone Generator Cabinet

Text Pages 2 through 3

Attachments

Hand Processed Changes

HPC No.	Date	Page Nos.	Initials

Approved: _____***Signature on File***_____ _____
Collider-Accelerator Department Chairman Date

L. Vogt

8.37 Safety Inspection of Marley Ozone Generator Cabinet

1. Purpose

To establish an inspection program to prevent accidental OVER-exposure to ozone.

2. Responsibilities

2.1 The Water Systems Group leader shall be responsible for implementing this procedure.

2.2 Water System Technicians shall perform inspections.

2.3 C-A ESHQ shall be responsible for annual calibration of test equipment.

3. Prerequisites

3.1 Familiar with the use of Ozone Source Calibrator, ECO Sensors Model OG-2.

4. Precautions

4.1 Familiar with Ozone Safety Information (C-A WTR-ATT-001.b)

5. Procedures

Equipment to be inspected by this procedure includes: Marley Ozone MO Series Ozone Generators, Model Number MOL-210.

5.1 Monthly inspections of the tubing and connections within the ozone generator cabinet shall be performed by Water Systems Technicians.

5.2 The tubing coming from each corona discharge unit to the exiting manifold shall be inspected for cracks, crazing, brittleness, discoloring, or any other signs of structural degradation. Any material that has signs of degradation shall require that the ozone generator portion of the system be shut down, and materials be replaced as soon as possible. The ozone generator shall not be restarted until all repairs are completed.

5.3 Seals on each corona discharge unit should be inspected for structural degradation. Any seal which appears suspect to degradation should be reported to the group leader immediately for further investigation.

5.3 Testing of the ozone monitor shall be performed monthly by Water System Technicians.

5.4 Tests shall be performed as per manufactures test instructions.

5.5 Inspections and tests shall be documented as per C-A-OPM Attachment 8.1.

6. Documentation

6.1 Documentation shall be retained for five years by the Water Systems Group.

7. References

None

8. Attachments

8.1 Ozone Generator Inspection/Test Checklist.

8.2 International Chemical Safety Cards.

Attachment 8.1

Ozone Generator Inspection/Test Checklist
(to be performed monthly)

Inspection

- ☐ Inspect tubing and connections from ozone generator to exit manifold.
- ☐ Inspect sealing gasket on each corona discharge unit (8 units).

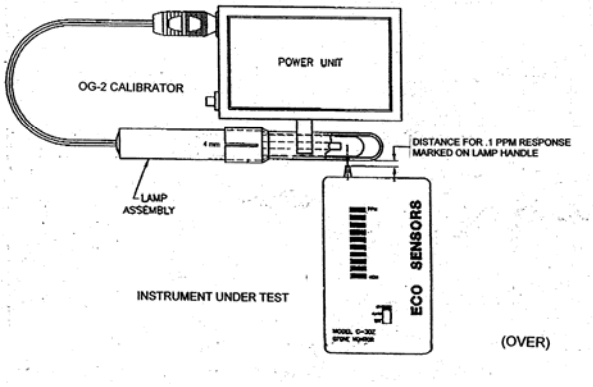
Performance Testing Ozone Monitor

- ☐ Check calibration date on calibrator.

Push red button down, observe if blue light is emitted from hole in probe.
(**Do not look directly at lamp, UV radiation is harmful without eye protection**)

Let calibrator warm up for 3 minutes.

Find the small hole near the end of the lamp shield and orient it so that the sensing port of the ozone monitor is pointing to it. Hold the probe the specified distance from the sensing port.



After about 1 minute, the monitor should start to respond. Wait until monitor alarm sounds and yellow strobe light engages. Ozone Generators should shut down.

- ☐ Performance test complete. Turn off calibrator.

Reset generator system.

Location of Unit Under test:_____

Date of Inspection Test:_____

Serial Number of Calibrator Probe:_____

Inspector:_____ Life Number:_____
(signature)

Keep this form on file
Copy to C-A ESHQ

International Chemical Safety Cards

OZONE

ICSC: 0068

UNEP

National Institute for Occupational Safety and Health NIOSH

O_3

Molecular mass: 48.0

(cylinder)

ICSC # 0068
CAS # 10028-15-6
RTECS # RS8225000

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Not combustible but enhances combustion of other substances. Many reactions may cause fire or explosion.	NO open flames, NO sparks, and NO smoking. NO contact with combustible substances.	In case of fire in the surroundings: all extinguishing agents allowed.
EXPLOSION	Risk of fire and explosion when heated or on contact with combustible substances (alkene, ethers).	Closed system, ventilation, explosion-proof electrical equipment and lighting.	In case of fire: keep cylinder cool by spraying with water. Combat fire from a sheltered position.
EXPOSURE		STRICT HYGIENE!	
•INHALATION	Cough. Headache. Shortness of breath. Sore throat.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Half-upright position. Artificial respiration if indicated. Refer for medical attention.
•SKIN	ON CONTACT WITH LIQUID: FROSTBITE.	Cold-insulating gloves.	ON FROSTBITE: rinse with plenty of water, do NOT remove clothes. Refer for medical attention.
•EYES	Redness. Pain. Loss of vision.	Face shield or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•INGESTION			

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Evacuate danger area! Consult an expert! Ventilation. If in liquid state: NEVER direct water jet on liquid (extra personal protection: self-contained breathing apparatus).	Fireproof if in building. Separated from all substances. Cool. Ozone is frequently stored refrigerated in halons.	R: S:

SEE IMPORTANT INFORMATION ON BACK

ICSC: 0068

International Chemical Safety Cards